9-Channel Digital Video Recorder

The AHDR9 is a high performance digital recording system that combines the benefits of digital recording with the advanced processing of a nine-channel multiplexer. The AHDR9 features ADEMCO Video's advanced, proprietary compression algorithm XtraStor, providing more storage on smaller media, without sacrificing image quality – resulting in days, weeks and even months of high-resolution video storage.

With its versatile processing capabilities, the AHDR9 can capture at a rate of up to 60 images per second (30 ips in duplex mode), while allowing selection of both the recording speed and picture quality for each of the nine cameras. Additional recording features include, alarm and motion detection, user-defined recording schedules, and multiple recording modes.

The AHDR9 generates compact encrypted archive video clips as self-executable files. ADEMCO Video's minibank format produces an executable (.exe) file containing both the video clip and reader, allowing you to simply run the clip in its original, unalterable format on any PC without the need for reader software.

The built-in network connection provides remote viewing and control over LAN/WAN, ISDN or DSL. The Windows-based remote software package allows secure operation and management of multiple AHDR locations.
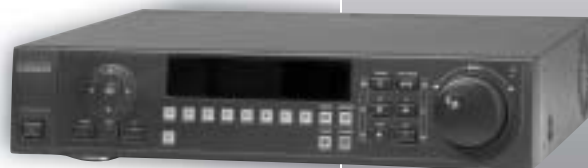
AHDR9 Series

The DVR can be placed on a desktop or rack mounted for easy access to the front panel controls for operation. The convenient jog shuttle and full LCD display panel operates just like a VCR, making it simple to operate and identify important system information. The intuitive, multi-lingual, graphical user interface provides easy-to-use displays for everyday operation as well as system setup.

With its superior digital technology, flexible feature set, and user-friendly operation, the AHDR9 provides a powerful, digital solution for a variety of video surveillance applications.

FEATURES:

- 9 video inputs
- Long-term video storage using XtraStor Technology
- Records/plays high definition video (720 x 480) with built in hard drive options up to 320GB
- Simplex or duplex recording mode with a capture rate up to 60 ips (duplex mode up to 30 ips)
- Single-channel audio recording/playback (records audio at 1 ips or faster)
- USB video backup to USB-IDE hard disk drive (with self executable files)
- Multiple recording modes – time lapse, event only (with configurable pre/post alarm recording), or time and event

- User-friendly, graphical user interface with multi-lingual support
- Front panel buttons, jog/shuttle and LCD display provides familiar operation
- Increased capture rate and image quality per camera on alarm
- Instant search and retrieval modes – calendar, event, time/date, first or last recorded images
- PTZ dome control
- Remote access through PSTN, LAN/WAN (internal NIC), DSL and ISDN (remote access software included)

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AHDR9 Series

- **High Resolution Image Capture**
  With its 720 x 480 recording resolution the AHDR9
  DVR uses XtraStor technology to record and retrieve
  video from its internal disk storage. This advanced video
  compression technique permits long-term video storage.
  With its capture rate of up to 60 images per second
  (IPS), critical information is processed accurately and
  efficiently.

- **Flexible Recording Options**
  The AHDR9 performs advanced processing on the nine
  input cameras, allowing selection of both the recording
  speed and picture quality, per camera. Further options
  exist to control recording by schedules, external inputs,
  or selectable motion detection. This flexibility provides a
  customized video processing system for each installation.

- **Remote Access Software**
  Using the supplied Remote Access Software (RAS)
  you can control and configure your AHDR9 unit from
  virtually any location. The RAS program is an integrated
  software tool, which controls system management,
  video monitoring and image playback of multiple AHDR
  remote sites. The RAS software provides secure
  password protected communications.

- **Instantaneous Search and Retrieval**
  Recording digitally eliminates the need to search through
  hours of videotape. The AHDR9 allows quick searches
  of its video database by event, calendar, or time/date.

- **Exceptional Picture Quality with XtraStor**
  The AHDR9 delivers crystal clear resolution up to
  720 x 480. With its multiple, user-definable resolution
  and image quality settings per camera, the AHDR9 is
  flexible and meets the needs of the vast majority of
  applications. XtraStor enables high-quality video while
  using minimal hard drive space.

- **Advanced Video Encryption**
  The AHDR9 hard disk recording file is PC-compatible
  and every recorded image contains a unique fingerprint
  that is chained with the preceding and succeeding
  images (chained-fingerprinting). This insures that the
  video images cannot be modified with any available
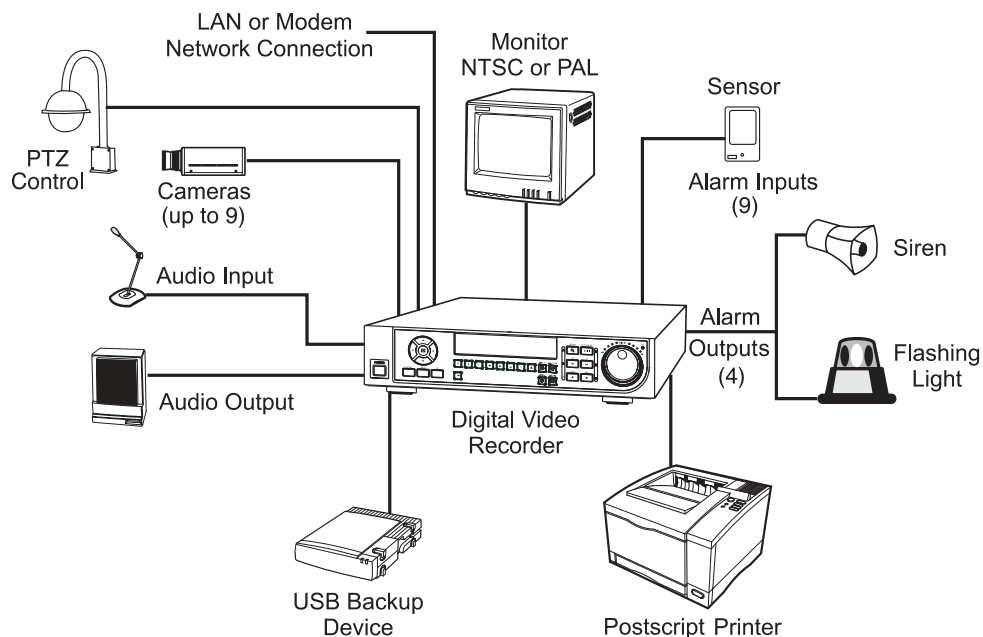 PC software – enabling a solid chain of evidence.

- **Easy to Install, Configure and Operate**
  The AHDR9 works like a VCR. Its easy-to-use, graphical
  user interface and familiar front panel controls provide
  the benefits of digital recording with minimal training.
  Its convenient jog-shuttle dial allows video review using
  step-by-step or variable speed control. The complete set
  of front panel buttons and full LCD display panel provides
  simple and intuitive operation.

- **PTZ Dome Control**
  Control of ADEMCO Video and other manufacturers'
  PTZ domes, accessible from front panel controls or
  through the remote software.

BASIC SYSTEM DIAGRAM

LAN or Modem Network Connection

Monitor NTSC or PAL

Sensor

Alarm Inputs (9)

PTZ Control

Cameras (up to 9)

Siren

Audio Input

Alarm Outputs (4)

Flashing Light

Audio Output

Digital Video Recorder

USB Backup Device

Postscript Printer

SPECIFICATIONS:

Video Recording System
- Disk drive options: 80GB, 160GB, 320GB internally mounted drives
- Record Modes: selectable to record until disk is full or continuously overwrite (FIFO), selectable for Simplex (up to 60 ips) or Duplex (up to 30 ips)
- Video Standard (user-selectable):
  – NTSC: 720 x 480 max.
  – PAL: 720 x 576 max
- Playback/Record Speed
  – Simplex: 60 ips (NTSC), 50 ips (PAL)
  – Duplex: 30 ips (NTSC), 25 ips (PAL)
- Quality Settings: Very High, High, Standard, Low
- Schedule (per camera)
  – User programmable recording times for each day of the week and holidays
  – Event or continuous

Video Inputs
- Composite: 9 looping inputs, 1V p-p, auto terminating, 75 Ohms, BNC

Video Output
- Composite: 1V p-p, auto terminating, 75 Ohms, BNC

Alarm Handling
- Alarm quality settings: Very High, High, Standard, Low
- Alarm duration: 1 to 300 seconds programmable
- Images per event
  – Up to 60 ips Simplex
  – Up to 30 ips Duplex

Rear Panel Connections
- Alarm Input: 9 dry contact, NC/NO programmable, 4.3V threshold
- Alarm Output: 4 (open collector), 5mA@12V, 30mA@5V
- Alarm Reset Input: 1 dry contact, 4.3V threshold
- Audio Input: 1 "line in" or "mic" programmable – RCA connector
- Audio Output: 1 "line out" – RCA connector
- Network Connectivity: 10/100 Mbps Ethernet, RJ45
- RS-232 Port: DB9 for external modem connection
- RS-485 Port: PTZ control or remote control option
- USB Port: USB connector
- Printer Port: DB25 connector

Front Panel Controls and Indicators
- Pushbutton controls: Power, Alarm, Menu, PTZ, Select, Up, Down, Left, Right, Camera Select (9), Display, Sequence, Freeze, Counter, Search, Rewind, Stop, Play/Pause, Fast Forward, Record
- Jog Shuttle Control: Step, Fast Forward/Reverse
- Numeric Display: Time of Day, Date, Percent of Disk Remaining
- Discrete LED Indicators: Front Panel Lockout, Power Failure, Time Lapse, Record, Menu, (Programming), Alarm, Rewind, Rewind Fast, Pause, Play, FF, Network, Duplex, Backup, Repeat Record Mode

Archiving
- USB-IDE Hard Drive (V1)
- Archives video in self-executable format

Physical
- Dimensions: 16.9" x 3.5" x 14.4" (430mm x 88mm x 365mm)
- Unit Weight: 20.9 lbs. (9.45 kg.)
- Shipping Weight: 24.1 lbs. (10.95 kg)
- Shipping Dimensions: 21.5" x 11.2" x 19.7" (547mm x 285mm x 500mm)

Environmental
- Operating Temperature: 41° to 104° F (5° to 40° C)
- Operating Humidity: 0% to 90%

Electrical
- Power: 100 to 240 VAC, 50/60Hz
- Connection: IEC320

Regulatory
- Immunity: UL, FCC and CE
- FCC: Part 15 subpart B, Class A
- EMI: EN55022, 1998, Class A
- Safety: EN60950
- Immunity: EN50130-4, 1998, Alarm Standard
- UL: cUL60950

Specifications are subject to change without notice.

AHDR9 Series

9-Channel Digital Video Recorder

AHDR9 Series Recording Time (based on 80GB)

Image Rec Compression Rate		RECORDING PICTURE QUALITY MODE			
(sec/imag)	(imag/sec)	LOW (2kb)	STANDARD (3kb)	HIGH (7kb)	V-HIGH (18kb)
0.02	60	185.2 hours (7.7 days)	123.5 hours (5.1 days)	52.9 hours (2.2 days)	20.6 hours (0.9 days)
0.03	30	370.4 hours (15.4 days)	246.9 hours (10.3 days)	105.8 hours (4.4 days)	41.2 hours (1.7 days)
0.05	20	555.6 hours (23.1 days)	370.4 hours (15.4 days)	158.7 hours (6.6 days)	61.7 hours (2.6 days)
0.10	10	1,111.1 hours (46.3 days)	740.7 hours (30.9 days)	317.5 hours (13.2 days)	123.5 hours (5.1 days)
1	1	11,111.1 hours (463.0 days)	7,407.4 hours (308.6 days)	3,174.6 hours (132.3 days)	1,234.6 hours (51.4 days)

AHDR9 Series Recording Time (based on 160GB)

Image Rec Compression Rate		RECORDING PICTURE QUALITY MODE			
(sec/imag)	(imag/sec)	LOW (2kb)	STANDARD (3kb)	HIGH (7kb)	V-HIGH (18kb)
0.02	60	370.4 hours (15.4 days)	246.9 hours (10.3 days)	105.8 hours (4.4 days)	41.2 hours (1.7 days)
0.03	30	740.7 hours (30.9 days)	493.8 hours (20.6 days)	211.6 hours (8.8 days)	82.3 hours (3.4 days)
0.05	20	1,111.1 hours (46.3 days)	740.7 hours (30.9 days)	317.5 hours (13.2 days)	123.5 hours (5.1 days)
0.10	10	2,222.2 hours (92.6 days)	1,481.5 hours (61.7 days)	634.9 hours (26.5 days)	246.9 hours (10.3 days)
1	1	22,222.2 hours (925.9 days)	14,814.8 hours (617.3 days)	6,349.2 hours (264.6 days)	2,469.1 hours (102.9 days)

AHDR9 Series Recording Time (based on 320GB)

Image Rec Compression Rate		RECORDING PICTURE QUALITY MODE			
(sec/imag)	(imag/sec)	LOW (2kb)	STANDARD (3kb)	HIGH (7kb)	V-HIGH (18kb)
0.02	60	740.7 hours (30.9 days)	493.8 hours (20.6 days)	211.6 hours (8.8 days)	82.3 hours (3.4 days)
0.03	30	1,481.5 hours (61.7 days)	987.7 hours (41.2 days)	423.3 hours (17.6 days)	164.6 hours (6.9 days)
0.05	20	2,222.2 hours (92.6 days)	1,481.5 hours (61.7 days)	634.9 hours (26.5 days)	246.9 hours (10.3 days)
0.10	10	4,444.4 hours (185.2 days)	2,963.0 hours (123.5 days)	1,269.8 hours (52.9 days)	493.8 hours (20.6 days)
1	1	44,444.4 hours (1,851.9 days)	29,629.6 hours (1,234.6 days)	12,698.4 hours (529.1 days)	4,938.3 hours (205.8 days)

Record duration, or the quality of images that can be recorded on the AHDR9's hard drive, can vary from one half to two times the typical results shown in the charts above. These results are dependent on several factors including the amount of activity or change in picture and the overall light level or noise in the video signal.

*60 ips available in Simplex recording mode only.

ORDERING:

Part No.		Description
NTSC	**PAL**	
AHDR9-80	AHDR9X-80	Digital Video Recorder, 9-Channel, 80GB Drive, Networkable
AHDR9-160	AHDR9X-160	Digital Video Recorder, 9-Channel, 160GB Drive, Networkable
AHDR9-320	AHDR9X-320	Digital Video Recorder, 9-Channel, 320GB Drive, Networkable

Also available: AHDR1, AHDR4, AHDR16 Series, featuring single, four or 16-channel inputs

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